

Puget Sound/Georgia Basin: Protecting and Managing an International Ecosystem—A Tri-University Dialogue (University of Washington/ University of British Columbia/Western Washington University)

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Introduction

The Puget Sound/Georgia Basin—the Strait of Georgia, Strait of Juan de Fuca, and Puget Sound—including the surrounding lands and watersheds, make up a trans-boundary, international ecosystem. This ecosystem is the habitat for millions of migratory birds, several species of salmon, whales, seals, and an abundance of other wildlife. The Puget Sound/Georgia Basin is also one of the most densely populated international regions in North America with a current population of about seven million people. The region remains one of the most beautiful in the world, but continued population growth and increased natural-resource consumption will seriously challenge long-term environmental, social and economic sustainability.

The challenges ahead—for clean drinking water, clean beaches, efficient transportation systems, healthy wildlife habitats, environmental security, etc.—are both complex and interconnected. Decision-making involves numerous stakeholders from First Nations to and adequately educated workforce must be able to understand these challenges from a variety of perspectives including a solid working knowledge of Canadian and American national policy differences. In 2000 this need was recognized and articulated by the federal environmental agencies of both countries.

In January of 2000, Environment Canada Minister, David Anderson, and United States Environmental Protection Agency Administrator, Carol Browner, signed a *Joint Statement of Cooperation on the Georgia Basin and Puget Sound*. The *Statement of Cooperation* outlines the common goals and objectives for sustainability in the region. It also promotes closer Canada-U.S.



Creating a Joint Program between U.W. and U.B.C. Back: Dr. Alan Tully, Dean, Arts and Sciences, U.B.C.; Lloyd Axworthy, former Minister of Foreign Affairs, Ottawa; Dr. Steven Olswang, Vice Provost, International Education, U.W. Front: Dr. Douglas Jackson, Director of Canadian Studies, U.W.; the Honorable Gordon Griffin, U.S. Ambassador to Canada.



Students in the “Borders” course: Back: James Cameron, Ashley Berger, Diane McHugh. Front: Dr. Douglas Jackson, Echo Galbrath, Tamara Brathovde, Jason Alcom.

collaboration in addressing trans-boundary and global environmental challenges. The agencies realized that while bi-national policy-making is the future, almost no research was being conducted that included data from both sides of the border, nor were educational courses being offered to prepare future generations for the realities of managing this international ecosystem.

Puget Sound/Georgia Basin Program History

The response to the *Statement of Cooperation* by the two major research institutions in the region was immediate. In June 2000, University of Washington (U.W.) president, Richard McCormick and President Martha Piper, at the University of British Columbia (U.B.C.), signed an agreement-in-principle for a joint Canada-U.S. Studies program to enhance student and faculty opportunities, acknowledge increased North American integration and to facilitate cross-border research. While the joint initiative served to facilitate bi-institutional programming across disciplines, a key focus of the agreement was the response to cross-border environmental protection and management.

The groundwork for a joint environmental program was laid that fall (2000) when both institutions co-sponsored the international conference *Rethinking the Line: The Canada-U.S. Border* in Vancouver, British Columbia. The conference drew over 450 participants who attended panels, round-tables and workshops on topics ranging from environmental issues, management of shared resources, immigration, security issues, tourism, trade, the virtual line (including e-commerce), transnational crime, etc. The conference was officially opened by the U.S. Ambassador to Canada, The Honorable Gordon Giffin and Canada’s Minister of Foreign Affairs, Lloyd Axworthy.

The director of the Canadian Studies Center at the U.W., Dr. Douglas Jackson, created a course based on the conference drawing a dozen students from various departments across campus. This course gave students a hands-on experience in Canada and provided them the opportunity to meet Canadian academics, politicians, and members of the business community as well as their U.B.C. colleagues.

The conference also stimulated a new interest in Canadian Studies at the U.W. and, in particular, a greater sense of the importance of the Canada-U.S. relationship. “Attending the conference really opened my eyes to how important and complex the relationship between Canada and the United States truly is,” said undergraduate Sarah Imholt, “the conference has inspired me to adjust my major. I have been working on designing a General Studies major ... now I am thinking of calling my major “Cascadia Studies” and will definitely be including more Canadian Studies courses.”

Another student participant, Tamara Brathovde, wrote of the course/conference experience, “The trip to Vancouver, B.C. to attend the Canada/U.S. Border Conference was, to me, one of the most valuable experiences in my college career for expanding my horizons. I not only learned about the current issues that affect the border, but I also gained a new sense of global reality. Through this new perspective I learned about the Canadian Studies culture in general as well as how the United States is perceived by other countries, and the international role both of these countries play.”



Building community through collaborative research - University of Washington students with course instructor, Ann Lesperance.

In addition to the undergraduate course, two U.W. graduate students played a key role at the conference acting as “rapporteurs.” Jeanine Marley and Jason Alcorn summarized several of the panels at the final policy session and their work was published on the Canadian Policy Research Secretariat Web site.

The conference also provided a venue for meetings between the U.W., U.B.C. and Western Washington University (W.W.U.) As a result of these meetings, plans for the first tri-institutional, environmental management course took place.

A Tri-Institutional Program Takes Shape

Beginning in the fall of 2001, each of the three institutions initiated an environmental course working in conjunction with the other two universities and involving several programs and departments across their campuses. At the U.W. the Canadian Studies and International Studies Centers, (both in the Henry M. Jackson School of International Studies) and the Program on the Environment initiated a course at the undergraduate level. At U.B.C. the tri-institutional program was initially housed at the Center for Canadian Studies later moving to the Sustainable Development Research Institute where the academic portion of the program is now offered at the graduate level. And, at W.W.U. the Center for Canadian-American Studies and Huxley College of Environmental Studies created a joint undergraduate offering.

It was agreed that the program have a two-fold mandate: 1) to educate students to become active citizens, informed decision-makers, and trained staff for agencies and industries by giving them a unique educational experience with a solid foundation in regional and bi-national environmental issues; and, 2) to produce cross-border research for application in regional environmental policy-making. To meet these goals, the program introduced students to major environmental challenges in the region and required that they work together in international teams to come up with policy recommendations bi-national in scope. The course addressed environmental issues affecting trade, commerce and aboriginal communities in Washington and British Columbia. It focused on competing interests of the various stakeholders while critically looking at resolution efforts.

Course Projects and Outcomes

This course has given me invaluable insight as to the importance of cross-border collaboration. We need to start thinking/working not just on national levels but regional—as with the cross-border ecosystem in Washington State/British Columbia—and global as well ... this course has served as a pivotal point in my education and major. Similar exchange courses need to be offered through all the disciplines to introduce the importance of international communication.

~ U.W. student, 2001 program



U.W. and U.B.C. students on the exchange weekend to Seattle touring the Duwamish River with Duwamish Tribe member, James Rasmussen.

Course projects are solicited from state and federal environmental regulatory agencies in Washington and British Columbia. In their research papers students are required to frame and articulate an issue; describe the conflict from the state/provincial, federal and tribal perspective; and propose a solution.

In the spring of 2002 *The Seed*—a U.B.C. student-produced journal—printed a special cross-border issue in which projects and essays from the joint course were published. The following essay titles clearly illustrate that the students approached issues from an international perspective. Published essays included:

- *Seeking Sustainability: A Comparison of the Musqueam and Duwamish Peoples*, by Tami Fordham, U.B.C.
- *The Tao of Energy: Balancing Energy and the Environment in the Puget Sound/Georgia Basin Ecosystem*, by Michelle Newman, U.W.
- *Orca Pass International Stewardship Area: Possibilities and Challenges in the Shared Waters of Puget Sound and Georgia Basin*, by Phillip Musegaas, U.W.
- *Environmental Issues and Residential Development in the Puget Sound and Georgia Basin Area*, by Andrew Warner, U.B.C.

Program Faculty and Advisors

The program draws on distinguished faculty in environmental studies to teach the courses and agency experts to act as advisors to the program. Ann Lesperance, Visiting Faculty for Program on the Environment, teaches the U.W. course. Lesperance is a Senior Research Scientist for Global Security Technology and Policy Center at the Pacific National Laboratory (P.N.N.L.), operated by Battelle for the U.S. Department of Energy. She has served at P.N.N.L. since 1990. Dr. James Tansey, Senior Research Associate, instructs the course at U.B.C. Tansey was trained in Environmental Sciences and conducts research in the sociology of risk, development of policy relevant decision tools, and most recently, social capital and health outcomes. Dr. Donald Alper, the director of the Center for Canadian-American Studies, teaches the course at W.W.U. Alper's research focuses on Canada-U.S. environmental politics with an emphasis on the Georgia Basin/Puget Sound trans-boundary region.

Advisors to the program include: Dr. Douglas Jackson, Director, Canadian Studies Center, U.W.; Dr. Craig ZumBrunnen, Co-Director of the Program on the Environment, U.W.; Dr. Daniel Chirot, Director, International Studies Center, Jackson School of International Studies, U.W.; Patrick Higgins, Political, Economic and Natural Resources Officer, Canadian Consulate General, Seattle; Michael Rylko, Puget Sound Coordinator, Environmental Protection Agency, Region 10; David Fraser, Senior Research Analyst, International and Intergovernmental Affairs, Pacific and Yukon Region, Environment Canada; and, Steve Stein, Technology Platform Leader, Core Technology, Battelle Seattle Research Center.

Student Exchange Component

The field trips were invaluable—bringing us to the environment and issues we were studying—rather than just reading or hearing about them. Through this course I have broadened my understanding of the complexity of the issues surrounding international ecosystem management and will utilize this awareness in future work.

~ Linda J. Lyshall, Graduate Student
Evans School of Public Affairs, University of Washington

An essential element of the course is the “exchange weekends” during which students from all three institutions spend two weekends together discussing and collaborating on research topics and engaging in informal conversations on the similarities and differences in environmental policies in the two countries. The purpose of the exchange weekends is to foster dialogue, collaborative research and understanding between Canadian and American students thereby enhancing the international learning experience. The weekends also allow for the introduction of experiential education giving students first-hand experiences of the issues discussed in class. Oftentimes it is difficult for students to take advantage of international exchange programs. Thanks to the vision and support of Dr. Steven Olswang, Vice Provost for the Office of International Education, U.W. and David Fenner, Director of International Exchanges and Liaisons, U.W., students are able to travel and study in Canada alongside their colleagues at U.B.C.

In the first year the exchange weekends built on the public lecture by aboriginal representatives from Washington State and British Columbia addressing two hydrological ecosystems - the Duwamish River just south of Seattle and Musqueam Creek in the Vancouver area. Both ecosystems bear cultural importance to the aboriginal people and are facing enormous challenges in terms of sustainability. During boat tours of the Duwamish and Musqueam, students were able to see the environmental impact on the rivers particularly from local industries and to hear about efforts being made to protect the watersheds.

In the second year the exchange weekend in Vancouver focused on the impact of the city on the physical environment. The opening public lecture, “The Future of the City: Urban Sustainability in Puget Sound/Georgia Basin,” explained the differences between Seattle and Vancouver, most notably the differences in population density over the last 15 years. Vancouver has succeeded in developing compact communities that make the city livable and in increasing the viability of public transit systems or development that reduces the ecological footprint of the city. The students were also introduced to a regional modeling tool called Georgia Basin-Quest that allows non-expert users to develop a 40-year scenario for the Georgia Basin region. The exchange concluded with a tour of the Skytrain transit system led by two regional planners.

Student Presentation Day

What I found most impressive was the students’ ability to get their minds around very complicated issues in such a short period of time and to express their findings and conclusions in such a clear and succinct manner. Their aggressive search for interviews with key stakeholders on both sides of the trans-boundary ecosystem was equally impressive. One student’s comment that he, “didn’t really register that we needed to work together on these issues” best expressed one of the goals and objectives that Environment Canada was pursuing in support of this initiative. My department is extremely pleased with the course and lecture series and we look forward to supporting subsequent collaborative efforts.

~ David Fraser, Senior Advisor
International and Intergovernmental Relations
Environment Canada

In autumn 2002 an additional component was added to the program to increase student interaction and to enable the students to present their research findings to professionals in the field. At the end of the quarter/semester, students from the three institutions now meet at W.W.U. to formally present their projects and papers to their peers and respondents from Environment Canada, the Environmental Protection Agency and the Canadian Consulate. The event is extremely successful both in giving the students a professional opportunity to present their research and in providing them with exposure to the two federal environmental agencies and the Canadian government. The student presentations are followed by a recognition banquet including a keynote speaker on a relevant topic, university administrators, and funders/supporters of the program.

Internships

Student internships are a critical part of the program particularly those internships that allow students to work bi-nationally. In the 2002 academic year, Carmen Hranac a senior in the Program on the Environment, U.W., worked as an intern for Environment Canada. In an agreement between Environment Canada and the Canadian Consulate, Ms. Hranac worked out of the Consulate in Seattle on the planning for this conference and proceedings. She was specifically responsible for promoting the Conference to the various university campuses and organizing a special event for students in the field of cross-border environmental management. The internship allowed Ms. Hranac to work internationally and to begin to build a network of professional contacts.

Public Lecture Series

To broaden the impact of the program, a public lecture series component was added to serve the needs of the larger community including businesses, media and government agencies. The lecture series is entitled, *Puget Sound/Georgia Basin: Managing an International Ecosystem* and is generously funded by the Weyerhaeuser Corporation. The speakers include public and private-sector decision makers who have a vested interest in the region. The objective of the lecture series is to highlight the cultural, economic, political and environmental importance of the Puget Sound/Georgia Basin and to educate citizens in the region about issues that affect their everyday lives.

Over the last two years approximately 1,000 members of the general public and educational institutions have attended eight annual lectures—four at U.W. and four at U.B.C. (The lecture series is also part of the course requirements for all enrolled students in the program.) The last lecture series included the following topics:

1. Science, Public Policy and Challenges in Protecting and Managing Puget Sound/Georgia Basin
2. New Approaches to Adaptive Ecosystem Management
3. Tribal Rights, Views, Philosophies, and Challenges in Protecting and Managing Puget Sound/Georgia Basin
4. Trans-boundary Species and Habitats
5. Economic Importance, Opportunities and Challenges in Puget Sound/Georgia Basin
6. Environmental Challenges Confronting Puget Sound/Georgia Basin
7. The Future of the City: Urban Sustainability in the Georgia Basin/Puget Sound Region
8. Regional Sustainability and Governance

The lecture series and academic program include a long list of endorsers and supporters, all of whom contribute to the shaping of the courses, the public lecture series, and the direction of the program. Supporting agencies currently include: Weyerhaeuser, Canada/U.S.; Canadian Consulate, Seattle; Environment Canada, Pacific and Yukon Region; Canadian Embassy, Washington, D.C.; Vice-Provost's Office for International Education, U.W.; Henry M. Jackson School of International Studies; Pacific Northwest National Laboratory; Environmental Protection Agency, Region 10; Greater Vancouver Regional District; Pacific Northwest Canadian Studies Consortium; and, the Pacific Northwest Economic Region.

Looking to the Future—Program Commitments and Goals

If the population of the Puget Sound/Georgia Basin continues to increase at its current rate, by 2020 there will be nine million residents in the region severely challenging its sustainability. For example, killer whales off the Pacific Northwest Coast have some of the highest toxin levels in the world and are now listed as an endangered species. Air quality on both sides of the border is poor and solid waste levels are high. According to a 2002 report by the Puget Sound Water Quality Action Team, the Puget Sound/Georgia Basin combined produces enough solid waste in one year to cover four lanes of the freeway at 18 feet deep and run for 240 miles. And, less than 50% of that waste is currently recycled in either country. Certainly, the growing population and expansion of urban areas will continue to encroach on air and water quality and on natural habitats further threatening plant, animal and human health. In part, the challenge for effective management of Puget Sound/Georgia Basin lies in effective collaborative efforts in international policy making.

U.W., U.B.C. and W.W.U. are committed to the *Puget Sound/Georgia Basin: Managing an International Ecosystem* program that will potentially lead to such cross-border understanding, and collaborative decision-making and regulatory measures. The current structure of the program is workable, has been very successful, and will continue with few changes. However, in order to institutionalize the program, an endowment fund must be created. The fund would pay for faculty salaries, administration and program costs at all three institutions and with the mandate that all three universities continue to work together to ensure that the program focus on bi-national policy issues and student collaborative projects and research.

Developing a Puget Sound/Georgia Basin Institute is the goal of all involved in this program. The purpose of this Institute would be to move beyond traditional research, which has tended to focus on the U.S. or Canada independently, and towards a research model that recognizes the interdependence of the shared bio-region. Such a program would involve researchers from both jurisdictions examining issues of common concern. Of course, very significant national differences remain and are likely to endure. Nonetheless it seems likely that the forces of globalization will close the distance between the two international regions, creating increased environmental, economic and political interdependence.

As the ministers of both the Canada and U.S. federal environmental agencies noted just a couple of years ago, educational and research collaboration must take place at the bi-national level in order that appropriate and workable policies are developed which are appropriate to cross-border regions. The shared vision of the University of Washington, University of British Columbia and Western Washington University is to play a key role in effective cross-border education and ultimately in applied research focusing on the environmental management needs of the Puget Sound/Georgia Basin region.